Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Raise the Rock**

A rock is lifted to the top of a building. As the rock is raised the gravitational potential energy (GPE) of the rock is recorded.

|  |  |
| --- | --- |
| Height above the Ground (meters) | GPE of the Rock (Joules) |
| 0 | 0 |
| 1 | 4.9 |
| 3 | 14 |
| 5 | 24 |
| 9 | 44 |
| 12 | 60 |
| 15 | 74 |

1. Graph the data
2. What is the y-intercent of this graph?
3. What does the y-intercept mean for this graph?
4. What is the slope?
5. What does the slope mean?